

CORRECTION

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# Correction to: Multianalytical approach for the analysis of the Codices Millenarius Maior and Millenarius Minor in Kremsmuenster Abbey, Upper Austria

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## Correction to: *Herit Sci* (2018) 6:10

<https://doi.org/10.1186/s40494-018-0176-3>

After the publication of the original article [1], the authors realized several typographical errors, which are listed with the corrected version as follows:

1. In “**Methods/experimental**” section

*The unit  $\mu\text{m}$  should be mm in diameter*

The wrong version was:

The available instrument is a portable Bruker ALPHA FTIR-spectrometer [27] with a spot size of approximately 4  $\mu\text{m}$  in diameter.

The correct version is:

The available instrument is a portable Bruker ALPHA FTIR-spectrometer [27] with a spot size of approximately 4 mm in diameter.

2. In “**Results and discussion**” section, in Table 1, red lead was written incorrectly (red led) and has been updated in this erratum.
3. In “**Codex Millenarius Minor**” section

The reference to the codex was wrong. The wrong version was:

**Table 1 Identified pigments in the illuminations of the investigated manuscripts**

Color	Codex Millenarius Maior	Codex Millenarius Minor
White	Lead or calcium based pigments	Lead white (2PbCO <sub>3</sub> ·Pb(OH) <sub>2</sub> )
Yellow	Orpiment/realgar as well as iron oxide	Orpiment (As <sub>2</sub> S <sub>3</sub> ) as well as iron oxide
Orange	Minium (= red lead, Pb <sub>3</sub> O <sub>4</sub> )	Minium (= red lead, Pb <sub>3</sub> O <sub>4</sub> )
Red	Minium (= red lead, Pb <sub>3</sub> O <sub>4</sub> )	Vermilion (HgS)
Dark red	Iron oxide/ochre	Iron oxide (FeO(OH))
Blue	Azurite (Cu <sub>3</sub> (CO <sub>3</sub> ) <sub>2</sub> (OH) <sub>2</sub> )	Lapis lazuli (Na <sub>8...10</sub> [Al <sub>6</sub> Si <sub>6</sub> O <sub>24</sub> ]S <sub>2...4</sub> )
Dark blue	Indigo (C <sub>16</sub> H <sub>10</sub> N <sub>2</sub> O <sub>2</sub> )	
Green	Copper based green pigment	Copper(II)-hydroxyl chloride (Cu <sub>2</sub> Cl(OH) <sub>3</sub> )
Brown	Iron based brown pigment (brown ochre)	Iron based brown pigment (brown ochre)

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The combination of XRF and rFTIR spectrometry yielded to slightly different materials in comparison to cod. MMI, due to the fact that rFTIR and Raman spectroscopies use different absorption properties.

This has been corrected to:

The combination of XRF and rFTIR spectrometry yielded to slightly different materials in comparison to cod. **MMA**, due to the fact that rFTIR and Raman spectroscopies use different absorption properties.

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The original article can be found online at <https://doi.org/10.1186/s40494-018-0176-3>.

#### Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Received: 17 May 2018 Accepted: 17 May 2018

Published online: 29 May 2018

#### Reference

1. Frühmann B, Cappa F, Vetter W, Schreiner M, Petrus F. Multianalytical approach for the analysis of the Codices Millenarius Maior and Millenarius Minor in Kremsmuenster Abbey, Upper Austria. *Herit Sci*. 2018;6:10. <https://doi.org/10.1186/s40494-018-0176-3>.

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